Consultancy Report

On

Pre-Project Information and Communication Technologies in Teacher Training Colleges
in Ghana

Prepared for:
The International Development Research Centre (IDRC)

Prepared by:
Jonnie Akakpo
Pre-Project Consultant
Contract No. 101574
Accra – Ghana

November 2002.
Acknowledgements

I wish to thank the International Development Research Centre, IDRC/West Africa Office for giving me an opportunity to carry out this activity in service to my country, Ghana.

Next, I thank my dear wife and children who have been patient and gracefully endured my absence from home while I was in the field so research and hiding from them to this report together.

I also wish to acknowledge those staffs I spoke to the Teacher Training Colleges I visited, personnel at the Ministry of Education. Ghana Educa
Executive Summary

The Teacher Education Division is the manager of the basic teacher education programme. The Division is tasked with the pre-service training and the continuing education of the serving teacher. Therefore, the goals and priorities for the Division are based on this task. These include preparing the grounds for quality teaching and learning outcomes at the Basic Education Level as well as developing school based support for teachers.

The Division adopts a number of strategies for achieving goals. These include, improving on pre-service training of the teacher, improving on the performance base of tutors in the colleges, targeting school based in-service training for basic school heads and teachers and continuing in-service training for all Assistant Directors (Supervision) and Circuit Supervisors.

The current government on assuming office in January 2001 set up an Education Reform Committee to review Ghana’s educational system at all levels, including teacher education. Government is also in discussion with a number of bilateral and multilateral donors with a view to introducing modern educational technologies including on-line distance learning, open colleges etc.

In February 2002, a Senior Programme Officer of the International Development Research Centre, IDRC at the West Africa Office in Dakar, Senegal indicated that Ghana as a country had been approved to participate in Information and Communication Technologies (ICTs) for Development initiatives and be supported by the IDRC.

A concept paper to “establish the status of ICTs in Teacher Training Colleges in Ghana with estimated budget was then submitted to the Dakar Office. A consultant was hired to undertake a pre-project research to assist the Ministry of Education put together a “Request for Research Funding Paper.”

This pre-project research is to visit three selected training colleges in the northern, mid and southern sectors of the country to establish the status of ICTs in Teacher Training Colleges. The scope of work covers meeting with officials at the education ministry, including the minister, officials at teacher education division, principals, tutors and teacher trainees of the selected colleges, the executive of the Ghana Association of Teacher Training Colleges Tutors, GHATTCOT, members of the Education Reform Committee.

The main findings of this activity have established that there is not much being done in the area of ICT in Teacher Training Colleges in Ghana. There are no ICT infrastructures and no ICT component in the curricula being run at the colleges. That teachers have positive attitudes towards the introduction of computers into education but are worried that lack of funds may not make the venture sustainable.

It is recommended that further research be done in the area of ICT in Teacher Education to have a holistic view of the issues on the ground.
International Development and Research Centre

Mission Report

Prepared by Jonnie Akakpo
Contract No. 101574

Date: July 2003
Mission Report – International Development and Research Centre, IDRC

Terms of Reference/Objective Assigned

The International Development and Research Centre, IDRC is a Canadian organisation that supports research in developing countries. Its entry point in any country it has projects in is a research project. Since 2001, Ghana has been designated as a priority country for the Acacia program.

In 2002 the Acacia Program Officer responsible for West and Central Africa suggested for the submission of a project concept paper for possible research in Ghana. Following the submission of a concept paper the following contract was signed between the IDRC and Jonnie Akakpo.

The principal objective of the contract is to develop a project proposal on ICTs in Teacher Training Colleges in Ghana in close collaboration with the Ministry of Education, the Ministry of Communication and Technology, the Teacher Education Division and other relevant bodies in Ghana including Teacher Training Colleges, the Ghana Association of Teacher Training College Teachers, the Education Reform Committee and the Scan-ICT project in Ghana.

Pursuant to this, the contractor was to:

a) design questionnaires for individual as well as focus group interviews
b) conduct field visits to institutions in Accra, Ada, Kumasi, Navrongo, Winneba and Akropong
c) conduct individual and focus group interviews in these institutions
d) collect and analyse relevant documentation to this study including curricula
e) elaborate a project proposal according to the IDRC guidelines
f) submit a consultancy report

Problematic

Ghana's educational system is in distress at every level. It is apparent that government is overwhelmed at the problems on hand; nevertheless, it is making efforts to address the situation with the limited resources available. Teacher Training Colleges in Ghana have a total enrolment figure of 18,549 admitting nine thousand (9000) trainees in the 2002/2003 academic year alone. The teachers turned out from the colleges, who invariably affect children in their formative years, have no idea what a CD-ROM is. They can not put on a computer and have no typing skills.

Indeed many schools in Ghana are introducing ICT into their curriculum. The problem is that teachers are not provided with any training and the result is that teaching is not in-depth or extensive. The consultant carried out a base line study in sample training colleges, interacting with college principals, tutors and teacher trainees to gather first hand experience on how teacher training colleges are using ICTs in teaching and learning. He also had interaction with policy makers at the Teacher Education Division as well as the Ministry of Education.

Methodologies

To execute the mission, the consultant made contact with key people at the Ministry of Education and Teacher Education Division (TED) to learn about government policy and programmes regarding integrating of information and communication technologies in teacher training colleges. During discussions with directors at TED it was suggested that the consultant visits with the International Foundation for Education and Self-Help (IFESH) offices because this office was already producing teaching and learning materials with training colleges.

The president of the republic set up an education reform committee to review the country's educational system and make recommendations. The contractor made contact with the committee through its chairman to obtain first hand information on the committee's findings regarding ICTs in teacher training colleges.

There had also been a project which scanned the ICT landscape of the country, contact was made with the consultant of this project to obtain information on the ICT status of the country.

Lastly, contact was made with the association of teacher training college teachers to learn about the objectives of the
Tools Designed
Questionnaires were designed to do individual interviews as well as focus group discussions targeting college principals, college tutors and teacher trainees. The contractor also had interviews with selected individuals engaged in activities or projects related to teacher education division. Requests were also made to teacher education division to view existing documentation on curriculum and related materials.

Site visits
The contractor made visits to the following institutions and individuals during the period of the study.

- Ada Training College/Ada
- Wesley College/ Kumasi
- Tamale Training College/Tamale
- Bagabaga Training College
- Peki Training College
- Education Reform Committee
- Teacher Education Division
- Ministry of Education
- Ghana Association of Teacher Training Colleges Teachers
- Prof. Clement Dzidonu

Findings

The Colleges

The five colleges visited were established between 1922 and 1965. They have been operational between 37 years and 80 years, a fairly long period of time. They have total enrolment figures between 300 and 710 with an average of a little below 20% being female trainees.

The colleges run common curriculum with only slight variations. Some colleges run programmes to enable graduands teach in junior secondary schools only while others run programmes that equip graduands to teach at both basic school level in upper primary as well as in junior secondary schools. Each of the colleges have been provided with two PCs and two printers in addition to a photocopier. These PCs have been placed in college administration space and used mainly by office staff for preparing official correspondence and others.

Out of the five colleges visited, three colleges have some computers. Wesley college in Kumasi entered into partnership with a computer training institute during the 1999/2000 academic year. The institute provided furniture, forty (40) computers and an instructor who is paid by the institute. The college provided space and ensures security and safety of the computers.

The college administration has scheduled eighty minutes computer training on the college time table for all students in the first and second year. Each teacher trainee is levied a fee which is payable per term. Programs run in these training sessions are designed to equip trainees with word processing and desktop publishing skills.

Teaching staff at the college are also expected to participate in this arranged training. The contractor noted that most tutors are not participating in the training program, citing lack of time and money to pay for the training as reasons for their inability to participate.

The other two colleges have eight (8) computers provided by a Non-Governmental Organisation (NGO) working with the colleges to help tutors develop teaching and learning materials. The computers are used to impact word processing skills done mainly by college tutors who volunteer their knowledge, skills and time for the benefit of their colleagues. No fees are charged in these institutions and there is no scheduled training for teacher trainees. These programmes have been running for a year plus.

The contractor also gathered at this point that the Ministry of Education is not in the position to fund computerisation of teacher training colleges. The colleges are encouraged to enter into partnership with prospective computer vendors and training institutes once they obtain approval of their respective college boards.

Infrastructure
Telecommunication infrastructure and availability of information technology tutors are critical issues that the nation is
line. Some of the colleges have applied to Ghana Telecom for additional lines and it is expected that these will be provided once new lines are made available.

Curriculum and Content Development.
The development of content for teaching and learning when computers are eventually introduced is an issue that would be worth considering by colleges, teacher education division and the ministry of education.

College Tutors
Between four to six tutors were engaged in focus group discussions at three of the colleges visited. Issues discussed include subject area, teaching pedagogy, years of experience teaching subject. Other areas touched are thoughts on pedagogy shift or change, effort to implement new ideas, mode and frequency of preparing notes.

There are no computers at the colleges for staff use except two PCs which are used mainly by office/administrative staff. The tutors were, however, quick to enumerate envisaged benefits that the introduction of ICT in their colleges would bring to them. Some of these include opportunity to research current information in their subject areas, more efficient way of preparing lesson notes and schemes of work, ability to visit colleges which are on-line and peruse their curricula and content etc.

About 98% of the tutors interviewed do not have typing skills and and less than 5% have ever used the Internet, though they have heard about it. They cited lack of time and financial resources as barriers to acquisition of knowledge and skills in ICT. All tutors demonstrated enough enthusiasm towards the idea of gaining new knowledge and skills.

Teacher Trainees
All teacher trainees interviewed were in their second year of training. The final year trainees were on internship and the first years had just come in and were yet to settle properly. They mentioned lack of tutors, textbooks and computers as serious draw backs to the effective running of teacher education program. A number of trainees already have computer skills and indicated how the integration of ICTs in the training colleges would enhance teaching and learning.

Other Contacts – GHATT/COT, SCAN-ICT & Education Reform Committee
Discussions with GHATT/COT, Education Reform Committee and SCAN-ICT could be better. Some members of Ghana Association of Teacher Training College Tutors (GHATT/COT) contend it would be a great challenge introducing computers into training colleges since the basic and junior secondary schools they would eventually teach in after graduation do not and would not have computers for some time and that it would take a little while to get these.

The Chair of the Education Reform Committee could not divulge information on their findings yet because the ministry of education was yet to make the findings public. He, however, mentioned infrastructure improvement and development of a syllabus for ICT teaching at training colleges as critical issues that deserve urgent attention.

The consultant on the SCAN-ICT project expressed similar sentiments as the chair of the education reform committee. The final report on the SCAN-ICT project is yet to be presented to the funding agency and so it was not yet in the public domain. This report has since been released and is available on the Acacia website at www.idrc.ca/acacia

2nd Mission
The Acacia Programme Officer for West and Central Africa visited Accra between May 26 –31, 2003. During his visit he held meetings with a number of individuals and organisations. His first encounter with the contractor was a planning meeting during which they outlined organisations to visit and when to do so. The following visits were planned:

Ministry of Education
Education Research Network for west and Central Africa (ENWARCA) group at West Africa Examinations Council
Teacher Education Division
Civil Society Groups at Busy Internet – Ghana Information Network for Knowledge Sharing (GINKS), Free and Open Source Software foundation for Africa (FOSSFA), and Free and Open Source Software Resource Centre (FOSREC)
Ghana ICT Policy Drafting Committee - Prof Clem Dzidonu, Chairman -
Two visits were made to the Ministry of Education; during the first visit, the programme officer was introduced to officials at the ministry of education where he outlined the mission and objectives of IDRC. At that meeting he was informed of the visit of Imfundo, an organisation that is supporting the ministry of education to introduce Online Distance Learning into teacher education. A visit was quickly made to their training site at GIMP A to learn of their objectives and plan of action.

The second visit to the ministry was to debrief officials on contacts made with Imfundo and teacher education. Visit to ENWARCA team was to discuss the possibility of this group engaging in research work in partnership with teacher education or ministry of education.

IDRC also held discussions with civil society organisations to explore possibility of partnering to undertake research activities in Ghana. In this regard the Ghana Information Network for Knowledge Sharing (GINKS) and a Ghana branch of Free and Open Source Software Foundation for Africa, the Free and Open Source software Resource Centre and the Centre for Information Technologies Research and Development (CITRED) were represented. Issues discussed include Ghana Internet Exchange Point, appropriating research results for development in northern Ghana and Africa's participation in the open source environment. The following persons were present at this meeting:

Guido Sohne - FOSSFA
Jonnie Akakpo - Contractor/CITRED/GINKS
Ebenezer Malcolm - GINKS
Phillip Boateng - GINKS
Gideon Hayford - FOSREC
Mark Davies - BusyInternet/GINKS
Eric Osiakwan - FOSSFA
Myra Togobo - GINKS
Gregg Zachary - Independent Researcher
Alioune Camara - IDRC P Officer

Very extensive discussions were held with Prof. Clement Dzidonu who suggested that IDRC could contact the Universities in Cape Coast and Winneba to explore ICT in education research. The consultant have since visited the two universities and had discussions with the Vice Chancellors. The Vice Chancellors are delighted to partner with IDRC and have separately set up research teams to come up with Concept Notes on Preparing teachers to work in a new environment using new technologies for teaching and learning.

Way forward
The interested parties are putting together concept papers which shall be forwarded to the programme officer in Dakar once they are complete. The critical issue of timeline is difficult to manage at this point but the contractor believes that this would be overcome as soon as possible.
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# Table of Contents

1. Introduction ................................................................................................................... 5  
   1.1 International Development Research Centre  
   1.2 The Organisation – Teacher Education Division  
   1.3 Location  
2. Objectives ..................................................................................................................... 6  
3. Site / Personnel Visits ........................................................................................................ 6  
4. Teacher Education Division ................................................................................................. 7  
   4.1 Introduction  
   4.2 Strategies for achieving Goals  
   4.3 Timeframe  
   4.4 Sponsorship of Teacher Trainees  
   4.5 Teaching Practice (Trainee Internship)  
   4.6 Teaching Resources  
   4.7 Female Science and Technical Education ....................................................................... 8  
   4.8 In–In–Out Scheme  
   4.9 History  
   4.10 Objectives for establishing TTCs  
   4.11 Challenges  
5. Awareness Creation and Advertising Teacher Training Colleges ......................................................... 9  
6. Application Forms Sale and Administration of Entrance Examination ................................................. 9  
7. Placement of Graduate Teachers ............................................................................................ 9  
8. Skills Upgrade ................................................................................................................ 10  
9. TED Reform .................................................................................................................. 10  
10. Support Agencies ............................................................................................................ 10  
11. Other Challenges ............................................................................................................. 11  
12. Grant Types ................................................................................................................ 11  
13. Site / Personnel Visits ....................................................................................................... 12  
   13.1 Year of Establishment ............................................................................................ 12  
   13.2 College Tutors ........................................................................................................ 13  
   13.3 Teacher Trainees ..................................................................................................... 13  
   13.4 Others – GHATTCOT, SCAN-ICT & Education Reform Committee  ............... 13
1. Introduction

1.1 The International Development Research Centre (IDRC)

The IDRC is a public corporation, created in 1970 by the Parliament of Canada to help developing countries use science and knowledge to find practical, long-term solutions to the social, economic, and environmental problems they face. IDRC is based on the conviction that development starts when communities in the south are able to take responsibility for their growth, using their own ideas and initiatives. Solutions cannot be imposed from the outside; they must be fostered from within.

The 1996 Information Society and Development (ISAD) conference in South Africa introduced the African development community to the potential of Information and communication technologies (ICTs) and served as a launching pad for the African Information Society Initiative (AISI, a framework for using ICTs in Africa to accelerate economic and social development.

Acacia represented Canada's contribution to the AISI. At the time, considerable skepticism prevailed about the development potential of ICTs.

In Acacia II, Africa will actively contribute to and benefit from the global knowledge economy, and ICTs will appear on the policy agenda of all African countries as a means to raise and improve living standards for all (including rural as well as urban dwellers, women, men, children, youth and the disabled populations).

1.2 The Organisation - Teacher Education Division

The Teacher Education Division is the manager of the basic teacher education programme. The Division is tasked with the pre-service training and the continuing education of the serving teacher.

The goals and priorities for the Division are to prepare the grounds for quality teaching and learning outcomes at the Basic Education Level and also to develop school based support for teachers.

1.3 Location

The Division has headquarters in Accra opposite the Accra Workers College. It is accommodated on the third floor of a three-storey building. The Division is headed by a Director of Education plus two Deputy Directors. It has regional and district offices all over the country which are head by Assistant Directors of Education.
2. Objectives

The onrush of new telecommunications technologies is forcing everyone all over the globe into a state of frenzy. Information and communication technology (ICT) has virtually single handedly powered the global economy in the last decade. A digital divide has emerged between developed and developing countries even as global economic growth has slowed down. In developing countries the potential for ICT is incalculable. ICT skills are required if Ghana in particular is to take advantage of these global developments.

The Internet and interactive computer-based multimedia are transforming school campuses and the way students learn. Many applications are designed to make learners more self-reliant and willing to accept challenging material on or off campus. Teachers, particularly those in the developed world, have shown and continue to show a better understanding of how to effectively utilise innovative forms of learning to provide alternate instructional delivery systems.

To place our institutions in a ready position to participate in the learning revolution. The following questions become very relevant. Will computer networks, multimedia capabilities and virtual reality make schooling obsolete? While some hold the view that a learning revolution is underway, and that school as we know it is dying, others are skeptical. They do not oppose the introduction of new technologies in the classroom, they worry about people embracing this technological revolution without adequately reflecting on its deeper consequences.

The ICT environment in Africa and Ghana for that matter, has changed significantly since the conception and introduction of Acacia I. Many new technologies have emerged, especially in the area of wireless communications. At the same time, telephone and Internet access in Africa has increased. There have also been renewed efforts, both global and regional, to bridge the digital divide – notably, the New Africa Initiative, which calls for a new partnership between Africa and the international community in order to address the continent's development problems.

Africa's ability to participate in and enhance its international competitiveness in the new global economy, and hence make progress in poverty reduction, depends in large part on its ability to use and adapt new information and technological innovations. There have some improvements in digital access in sub-Saharan Africa in the past few years. Social investments are needed for the application of ICTs in under-served regions and communities that principally serve poor people. Africa requires technologies that are low-cost and high-volume.

Subsequent to the above ideals, the International Development Research Centre engaged a consultant to carry out a Pre-project in ICTs in Teacher Training Colleges in Ghana. The terms of reference of the contract has the following principal objective:

To develop a project proposal on ICTs in teacher training colleges in Ghana in close collaboration with the Ministry of Education, the Ministry of Communication and Technology, the Teacher Education Division. Other bodies include selected Teacher Training Colleges, the Ghana Association of Teacher Training College Tutors, the Education Reform Committee and the SCAN-ICT project in Ghana.

Pursuant to the contract, the consultant shall:

a. design the questionnaire for individual interviews and focus group discussions;

b. conduct field visits to institutions in Accra, Ada, Kumasi, Navrongo, Winneba and Akronpong;

c. conduct individual interviews and focus group discussions in these institutions;

d. collect and analyse relevant documentation to this study including curricula;

e. elaborate a project proposal according to the IDRC guidelines available in the IDRC Website at http//www.idrc.ca.

3. Site / Personnel Visits

<table>
<thead>
<tr>
<th>Institution</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ada Training College/Ada</td>
<td>Southern section</td>
</tr>
<tr>
<td>Wesley College/ Kumasi</td>
<td>Mid section</td>
</tr>
<tr>
<td>Tamale Training College/Tamale</td>
<td>Northern section</td>
</tr>
<tr>
<td>Bagabaga Training College</td>
<td>IFESH Program</td>
</tr>
<tr>
<td>Peki Training College</td>
<td>IFESH Program</td>
</tr>
<tr>
<td>Education Reform Committee</td>
<td>Winneba</td>
</tr>
<tr>
<td>Teacher Education Division</td>
<td>Accra</td>
</tr>
<tr>
<td>Ministry of Education</td>
<td>Accra</td>
</tr>
<tr>
<td>Ghana Association of Teacher Training Colleges Teachers</td>
<td>Akropong</td>
</tr>
<tr>
<td>Prof. Clem Dzidormu</td>
<td>SCAN-ICT Project</td>
</tr>
</tbody>
</table>
4. Teacher Education Division

4.1 Introduction

The Teacher Education Division is the manager of the basic teacher education programme. The Division is tasked with:

i. the pre-service training and
ii. the continuing education of the serving teacher

The goals and priorities for the Division are based on this task. Goals of the Division include:

i. To prepare the grounds for quality teaching and learning outcomes at the Basic Education Level
ii. To develop school based support for teachers

4.2 Strategies for achieving goals

To improve on pre-service training of the teacher
To improve on the performance base of tutors in the colleges
To target school based in-service training for basic school heads and teachers
To continue in-service training for all Assistant Directors (Supervision) and Circuit Supervisors.

4.3 Time Frame

By 2005, children in basic schools and those who come after them should perform better than is being done at the present. This would be guaranteed through:

i. improved supervision at the school base
ii. updated competencies in the teacher

Enrolment in the thirty eight (38) Teacher Training Colleges as of

- 1991/92: 13,561
- 1992/93: 17,852
- 1993/94: 18,955
- 1994/95: 18,696
- 1995/96: 18,426
- 1996/97: 19,250
- 1997/98: 20,399
- 1998/99: 20,912
- 1999/2000: 21,410
- 2000/01: 20,000
- 2001/02: 20,000

4.4 Sponsorship of Teacher Trainees

Under the Free Compulsory Universal Basic Education (FCUBE) there is need to produce a good number of competent teachers for basic schools through the country. However, it has been difficult to get trained teachers to accept posting to the rural areas. Even when teachers accept posting they do not stay for long.

The sponsorship scheme which took off in the 2000/01 academic year is an attempt to meet the challenge of shortages of qualified teachers in the rural and other disadvantaged areas. The sponsored students on completion of their course of training will be contracted to teach in the district that sponsored them for a minimum period of three years.

4.5 Teaching Practice (Trainee Internship)

New modalities for school attachment, on-campus teaching practice with emphasis on developing competencies which the Teacher Trainee needs to acquire to be able to function effectively in the classroom have been developed for the colleges.
4.6 Teaching Resources

With the collaborative efforts of tutors who have benefited from overseas training, the Division has succeeded in producing textbooks in three subjects:

i. Mathematics
ii. Science
iii. Technical Skills

Teaching outlines and materials have also been developed in English Language and Literature. These have contributed a great deal to reduce the shortage of textbooks at the TTCs.

4.7 Female Science and Technical Education

As a further boost to female science education, St. Louis and OLA Training Colleges have been given authorisation to do science as one of their programmes.

The Division is also encouraging more girls to study technical skills and drawing. Female Technical Skills tutors have been posted to the colleges to teach and mentor the female trainees.

4.8 In-In-Out Scheme

Under the scheme Teacher Trainees in their third year will be posted to their sponsoring districts to teach for one academic year. This will constitute their teaching practice and enhance the production of quality and effective teachers. The scheme should make it possible to admit more candidates into the colleges since trainees would only spend two instead of three years with the old system.

4.9 History

Teacher Training Colleges have been in Ghana since 1848 when the first training college was established in Akropong Akuapem in the eastern region of Ghana. It was established by the Basil Missionaries who had come to the Gold Coast to evangelise.

Recognising the gap in communication between the missionaries and the indigenous people, the missionaries established the college to train local people in English language, among other subjects, to help spread the gospel. The colonial masters at the time also saw need to train Gold Coasters to enable them acquire literacy and numeracy skill. This was perceived as a means to accelerate the development of the country. The Accra Technical Training College was set up in 1903 to achieve this objective. The most recent training college was set up in Tumu in the Upper West Region.

4.10 Objectives for establishing TTCs

Missionaries
Colonial Masters

Dr. Kwame Nkrumah – Prime Minister of Gold Coast in a national accelerated manpower development programme established several training colleges to produce teachers for basic schools and others.

Today the total enrolment of teacher training colleges stands at 18000 as of September 2002. The objectives for setting up the colleges have been partly achieved. Successive governments have not been able to train enough teachers to date to teach in the several basic schools across the country.

4.11 Challenges

Training of teachers is a financially intensive activity so government typically gives quota to the Ministry of Education/Teacher Education Division which must not be exceeded. Government provides allowances for teacher trainees and is able to only offer so little hence the inability to admit as many candidates as are actually needed in schools.
Typically admission quotas are fixed at 7000 teacher trainees a year. About 9000 fresh teacher trainees were admitted in the 2002/2003 academic. This happened through government’s poverty reduction strategy where interested female candidates were given remedial training to better their lots as well as sit an entrance examination.

It is observed that female teachers stay on the job much longer than their male counterparts. As such a lot needs to be done to encourage more female teachers. The male teachers tend to move into other more lucrative and seemingly more prestigious professions after a short time on the teaching job.

Colleges' libraries are not well equipped. Through the support from IFESH, resource centres have been set. The centres are used for teaching other teachers in the area how to prepare teaching and learning materials. Basics materials such as cardboards, markers and cutting instruments are used in developing teaching and learning aids. Every college has some space available to undertake this activity; to date, sixteen (16) colleges have taken advantage of this opportunity with twenty two (22) colleges yet to take action.

The Ministry of Education is embarking on an upgrading exercise, with intent to upgrade training colleges into Diploma awarding institutions. This calls for corresponding upgrade of professional as well as administrative staffs. October 1 2003 is the target date to upgrade all teacher training colleges, but according to a director at the Teacher Education Division, year 2004 is more realistic. It is expected that when this is done, the calibre of tutors and teachers would go up and subsequently affect teaching and learning.

The current programme being run awards a certificate after three (3) years training. A team of nine (9) experts drawn from the Ministry of Education, University College of Education, Winneba and the University of Cape Coast are to commence work in October through to March 2003 to come up with the transition package.

A mapping exercise has begun at the time of this interview. The nine experts engaged for this activity are drawn from the following areas: Basic Education
- The University College of Winneba
- University of Cape Coast
- Curriculum and Research Division
- Technical Education Division
- Principal Conference

Teacher Training Colleges can pride themselves of the following resources. These are available at every teacher training college across the country.
- Human Resources
- Physical Structures
- Some Equipment
  - Libraries
  - Workshops
  - Laboratories
  - Dormitories
  - Classrooms
- 2 Desktop Computers, 2 Printers and a Photocopier.

On paper the government sees the need to reform teacher training colleges. Anything that would lead to the realisation of this dream is welcome. The main bottleneck is this effort is finance; about 89% of government educational budget goes into salaries. The remaining 11% goes into purchase of textbooks.

5. Awareness Creation and Advertising Teacher Training Colleges.

The Career and Counseling unit speaks at school through invitations only to sensitise schools about teacher training colleges. Guidance Counsellors at Senior Secondary Schools also provide counselling services to schools and interested students in particular.

Teacher Education Division also places paid advertisements in national newspapers when colleges are about to admit fresh students. In addition to these efforts, a small handbook production is in progress, a draft copy is out and the final copies are expected to be out in December 2002. JICA is supporting this effort.
6. Application Forms Sale and Administration of Entrance Examination

Sale of application forms is done centrally at the Teacher Education Division. Colleges are also provided with some forms to sell. The processing of applications which involves checking candidate suitability and ensuring equity in candidate distribution to all thirty-eight colleges is centrally administered in Accra.

The entrance examination is administered by the West Africa Examination Council (WAEC). The entrance examination forms are sold at all regional capitals. WAEC conducts examination and publishes pass list. A conferenc selection makes the final list based on quota for each college and who have met the set criteria. Successful candidates then go to their District Education Offices and solicit sponsorship from the District Assemblies.

Training Colleges run a three (3) year curriculum and awards a certificate after successful completion of the program. While in college candidates assessment is done both internally and by an external agency. Promotion examination conducted in year 1 is administered by the University of Cape Coast. Internal assessment is handled by tutors at the colleges.

7. Placement of Graduate Teachers.

The Human Resource Director of the Ghana Education Service in conjunction with a Postings Board, does placement of newly trained teachers. A careful look is taken of vacancies at both national and regional levels. Teachers are allocated on proportional basis which are made available by District Education Offices.

Once teachers are posted to basic and junior secondary schools after graduation, no monitoring whatsoever, is done. Teacher Education Division accedes to this drawback and would want to change this unfortunate situation. It would be, however, easy to trace a teacher any time this is desired since a prospective trainee fills forms at three points before entering a college; namely: Teacher Education Division, District Education Office, and Teacher Training College.

8. Skills Upgrade.

Individual Districts provide some knowledge and skills upgrading/refresher courses to serving teachers, but this is not widespread. A District Teachers Support Team (DTST) is usually in charge of training at the district level. A DTST is constituted by headteachers, Teacher Training College teachers and District Officials.

Ministry’s Perception of Information and Communication Technologies in Teacher Education

It is necessary to have ICTs in education since this will serve several purposes, chief among which is that it will serve as a source of information from which teachers can source information to help them in teaching. It is expected that the year’s internship program will also enhance teachers’ skills and professional competence.

It is critical that Computers and the Internet are provided to basic schools only after TTCs have been equipped. According to the TED, some TTCs are already using PCs in teaching and learning.

9. TED Reform

Previously, there was no linkage between training colleges and basic schools where teachers are posted on completion of their program. Presently, the curriculum in TTCs is the same curriculum taught at basic schools.

It is the Ministry’s desire to equip Training Colleges to become resource centres of excellence so that teachers in basic schools with the district go to the colleges to learn new things. The introduction of a year’s internship is also meant to provide trainees the ability to teach adequately.

The academic background of tutors and principals is being upgraded to a higher level, preferably a Master’s Degree. The idea of upgrading training colleges from certificate awarding institutions to diploma awarding institutions makes professional staff upgrading even more compelling. There is a mass rehabilitation of all TTCs, more bungalows, accommodation for trainees, new libraries and improved administration blocks are being given serious consideration and in some cases, some of these are under construction.
With support from KFW through GTZ, German Technical Cooperation and FPMU – Literacy House, the revision of college curriculum between 1997 and 2000 to correspond to basic school curriculum was made possible.

10. Support Agencies

The following agencies have been very supportive of the ministries effort to ensure universal and quality education to all Ghanaians.

- DFID – Manpower training - provide funding for DTST activity
- JICA – provides support for SMT program. In service programme for Science Mathematics and Technology education; being done in three districts currently.
- USAID – Manpower training, Quality Improvement Program through the Community Sensitisation Assistance (CSA) and Catholic Relief Service (CRS)
- World Bank – supporting books production in Ghanaian languages
- GTZ – involved in ASTEP – Assistance to Teacher Education Project. This is the production of teachers guide and pupils in three (3) Ghanaian languages from primary 1-3.

In addition JICA has trained a lot of teachers and there is an increase in the performance level of teachers. GTZ also supported the production of substantial volumes of books within two years. This has greatly impacted teaching and learning in our schools.

11. Other Challenges

There is no transparency between donor agencies (through foreign NGOs) and government institutions, particularly the ministry of education. The ministry is not told what has been given out and what it is being used for. Normally foreign bodies do not involve local people much.

Most of the foreign NGOs are founded in Ghana to work in Ghana with foreign personnel. It is helpful to know how much funding is available for projects.

Comprehensive Scope Of Work, Deliverables must be clearly defined. If possible, line items with budget must also be provided.

Twice a year, in March and in October, a consultative partner meeting is held during which all donor agencies plus ministry of education evaluate and review all on-going projects. This FPMU is tasked to ensure the collaboration happens.

There is, however, a mid-term round table discussion with beneficiaries to evaluate disbursement style and to know whether money is being under or over spent. Projects rea typically 2-4 years with a mid-term assessment done with the Ministry. The TED would appreciate a six (6) monthly assessment.

12. Grant Types

A number of grant types is made available to government for various projects. A non-project assistance fund which is grant given to government if certain conditions are fulfilled. It is ministry’s contention that conditions are too many sometimes. Invariably, government is able to attain one but not to others so is not able to access. It suggests that if conditions can be mapped or matched to specific percentages.

Other agencies which partner with the ministry of education include the following:

- Plan International
- Action Aid
- UNICEF
- UNFPA – Aids Program
- UNESCO
- DANIDA
- CIDA

All these are involved in Primary Education, train teachers, provide textbooks – provide and distribute books as well as provide furniture.

It is expected that new comers would speak with the Ministry of Education to discuss package being brought in before the commencement of work.
### Site / Personnel Visits

A total of five training colleges were visited within the period September and November 2002. These are

<table>
<thead>
<tr>
<th>College</th>
<th>Section</th>
<th>IFESH Program</th>
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<tbody>
<tr>
<td>Ada Training College/Ada</td>
<td>Southern</td>
<td></td>
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<tr>
<td>Wesley College/ Kumasi</td>
<td>Mid</td>
<td></td>
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<tr>
<td>Tamale Training College/Tamale</td>
<td>Northern</td>
<td>IFESH Program</td>
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<tr>
<td>Bagabaga Training College</td>
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<td>IFESH Program</td>
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<td>Peki Training College</td>
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### 13.1 Year of Establishment

The five colleges visited were established between 1922 and 1965. They have been operational between 37 years and 80 years, a fairly long period of time. They have total enrolment figures between 300 and 710 with an average of a little below 20% being female trainees.

The colleges run common curriculum with only slight variations. Some colleges run programmes to enable them teach in junior secondary schools only while others run programmes that equip graduands to teach at both basic school level in upper primary as well as in junior secondary schools. Each of the colleges have been provided with two PCs and two printers in addition to a photocopier. These PCs have been placed in college administration space and used mainly by office staff for preparing official correspondence and others.

Out of the five colleges visited, three colleges gave some computers. Wesley college in Kumasi entered into partnership with a computer training institute during the 1999/2000 academic year. The institute provided furniture, forty (40) computers and an instructor who is paid by the institute. The college provided space and ensures security and safety of the computers.

The college administration has scheduled eighty minutes computer training on the college timetable for all students in the first and second year. Each teacher trainee is levied a fee which is payable per term. Programs run in these training sessions are designed to equip trainees with word processing and desktop publishing skills.

Teaching staff at the college are also expected to participate in this arranged training. It is, however, the observation of this author that most tutors are not participating in the training program, citing lack of time and money to pay for the training as reasons for their inability to participate.

The other two colleges have eight (8) computers provided by a NGO working with the colleges to help tutors develop teaching and learning materials. The computers are used to impact word processing skills done mainly by college tutors who volunteer their knowledge, skills and time for the benefit of their colleagues. No fees are charged in these institutions and there is no scheduled training for teacher trainees. These programmes have been running for a year plus.

Another observation made by the author is that government, for that matter, the Ministry of Education is not in the position to fund computerisation of teacher training colleges. The colleges are encouraged to enter into partnership with prospective computer vendors and training institutes once they obtain the nod and approval of their respective college boards. Teacher training computerisation is therefore a very far off reality, for now government's priority is payment of staff salaries and provision of textbooks.

To this end a principal who does not have computers for training its tutors and teacher trainees, is vigorously engaged in discussions with the college board and a computer vendor in an effort to acquire their own computers. It will be good exercise to find out what other principals are doing to acquire computers for their colleges. It seems to me that computer vendors and training institutes are willing and more than ready to set up computer laboratories in teacher training colleges.

Principals indicated the availability of space to accommodate computers if they were provided with them. They also mentioned that manufacture and provision of furniture would be easily addressed. Principals again intimated excellent security facilities at their institutions and added that provision of electricity is reliable and uninterrupted. Some colleges have their own generators to ensure regular and reliable supply of electricity.

Telecommunication infrastructure and availability of information technology tutors are critical issues that the nation is grappling with. Teacher training colleges face similar difficulties. All five teacher training colleges have
only telephone line. Some of the colleges have applied to Ghana Telecom for additional lines but these have been in waiting pending the availability of new lines. The development of content for teaching and learning when computers are eventually introduced is an issue that colleges, teacher education division and the ministry of education should begin considering.

13.2 College Tutors

Between four to six tutors were engaged in focus group discussions at three of the colleges visited. Issues discussed include subject area, teaching pedagogy, number of years of experience teaching subject. Other areas touched are thoughts on pedagogy shift or change, effort to implement new ideas, mode and frequency of preparing notes. The important question of whether ICTs were employed in teaching and learning was posed. The answer was in the negative. There are no computers at the colleges for staff use except two PCs which are used mainly by office/administrative staff. The tutors were, however, quick to enumerate envisaged benefits that the introduction of ICT in their colleges would bring to them. Some of these include, opportunity to research current information in their subject areas, more efficient way of preparing lesson notes and schemes of work, ability to visit colleges which are on-line and peruse their curricula and content etc.

About 98% of the tutors interviewed do not have typing skills and and less than 5% have ever used the Internet, though they have heard about it. They cited lack of time and financial resources as potential barriers to acquisition of knowledge and skills in ICT. All tutors demonstrated enough enthusiasm towards the idea of gaining new knowledge and skills.

13.3 Teacher Trainees

All teacher trainees interviewed were in two (2) since the final year trainees were on internship and the first years had just come in and were yet to settle properly. The desire to help less fortunate people, impart knowledge to other people and the ability to communicate with others were some factors that motivated the young men and women to seek admission into teacher training colleges.

They are excited to be in college but mentioned lack of tutors, textbooks and computers as serious draw backs to the effective running of teacher education program.

13.4 Others - GHATTCOT, SCAN-ICT & Education Reform Committee

Discussions with GHATTCOT, Education Reform Committee and SCAN-ICT were not very encouraging. GHATTCOT executive intimated that their priority was to get as many of their members as practicable into a sandwich programme being run at the University of Cape Coast. The sandwich programme provides tutors the opportunity to upgrade themselves from Bachelor Degree holders to Masters Degrees. This is to prepare them fit into the envisaged Diploma awarding teacher training colleges.

Some also contend that there was no point introducing computers into training colleges since the basic and junior secondary schools that they would eventually teach at after graduation do not and would not have computers. What is the point if the fun only stops at the training colleges?

The Chair of the Education Reform Committee was not in the position to divulge information on their findings. The ministry of education is yet to make the findings public. When it is done then the material can be accessed by any interested party. He, however, shared his personal observations on teacher education with this author. Training colleges are admitting the right trainees and that there are many tutors without a Masters Degree. He mentioned infrastructure improvement and development of a syllabus for ICT teaching at training colleges as critical issues that deserve urgent attention.

The consultant on the SCAN-ICT project expressed similar sentiments as the chair of the education reform committee. The final report on the SCAN-ICT project is yet to be presented to the funding agency and so it is not in the public domain.